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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,791	02/11/2004	Kenji Hayashi	KOY-19	3239

20311 7590 03/09/2006

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EXAMINER

GOODROW, JOHN L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/776,791	Applicant(s) HAYASHI ET AL.	
	Examiner John L. Goodrow	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims merely setting forth physical characteristics desired in an article and not setting forth specific compositions, which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart the desired characteristics. Thus the expression " wherein a differential heat quantity curve measured by a differential scanning calorimeter has a clear endothermic peak" Is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition and in effect, recites compounds by what it is desired that they do rather than what they are.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

4. Claims 1-18 are rejected under 35 U.S.C. 102(a) as being anticipated by Ohmura et al [6677097]. Applicants' claims are to a toner and an image forming method using

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the toner. Ohmura et al teaches a toner and image forming method note Col. 4 lines 39-69. The toner has a domain-matrix structure and utilizes a crystalline compound in a polymerizable monomer. The use of the crystalline substance in the toner controls the melting characteristics of the toner. The melting point of the crystalline substance is a value measured by a differential thermal analyzing apparatus (DSC) note Col. 9 lines 45-55. The measurements will provide both an endothermic peak and an exothermic peak. The exothermic is lower than the endothermic and in the (DSC) curve the endotherm is from 4-30 J/g note Col. 10 line 29. The compositions of the toner in applicants' examples and Ohmura are similar and the physical properties are assumed to be anticipated.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al [6475685] in view of Hayashi et al [6395442] and EP 1 385 062. Uchida et al teaches the toner for developing electrostatic latent images. The toner has a crystalline compound and exhibits one recrystalline peak during a second heating process in the differential scanning calorimeter (DSC) curve of said toner. Both an endothermic and exothermic DSC curve are taught in Col. 4 lines 34-67. The peak relationship of the

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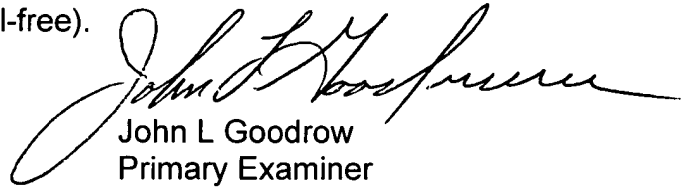
peaks are taught in Fig 1. Hayashi et al teach the dynamical properties of the toner with a crystalline binder . Hayashi et al teaches a toner with a crystalline material and an amorphous polymer. The toner is formed in an emulsify dispersed solution into a water based and the crystalline materials do not disappear. The crystalline material have an average molecular weight from 1,500-15,000 note Col. 3 and Col. 4. The melt viscosity is taught in Col. 5 line 8-11. EP 1 385 062 teaches a resin composition of both crystalline and non-crystalline in a toner in which the endothermic and exothermic peaks control the physical properties of the toner. The amount of either allows the polymer viscosity to be controlled. When the viscosity is to be reduced upon pressurizing with the fixation roll, whereby giving an increased smoothness of the printed surface, which enables the improvement in the gloss at the same time with the improvement in the low temperature fixation performance. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use the thermo characteristics in the toners physical properties to improve the toner for use in an image forming method that utilizes heat in the fixing of the developed image.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Goodrow whose telephone number is 571-272-1384. The examiner can normally be reached on Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goodrow
Primary Examiner
Art Unit 1756
